

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claim 1 (currently amended) A method, with the aid of a computer system, of tracking credit limits for a plurality of tenors of one or more financial instruments, each said tenor associated with one of a plurality of buckets, said method comprising:

receiving at said computer system a proportional draw down amount associated with each of said buckets;

receiving at said computer system a signal associated with a trade action, said signal including a trade tenor and a trade amount; and

using said computer system to recalculate ~~recalculating~~ said proportional draw down amount for each said bucket by implementing a function expressed as

$$M_i^{\alpha+1} = M_i^{\alpha} - (M_i^{\alpha} / M_k^{\alpha}) * X_k,$$

where  $M_i^{\alpha+1}$  denotes the value of the proportional draw down for bucket i after  $\alpha+1$  trades, and  $X_k$  denotes the size of the trade for bucket k.

Claim 2 (original) The method of claim 1 further comprising:

defining an overriding credit limit for each said bucket.

Claim 3 (currently amended) The method of claim 2 further comprising:

using said computer system to recalculate ~~recalculating~~ said overriding credit limit for each bucket as a function of said trade amount and said trade tenor.

Claim 4 (currently amended) The method of claim 3 further comprising:

using said computer system to calculate ~~calculating~~ a current available limit for each bucket.

Claim 5 (canceled).

Claim 6 (previously presented) The method of claim 4 wherein said recalculation of said overriding limits comprises:

implementing a function expressed as

$$O_i^{\alpha+1} = O_i^{\alpha} - \delta_{ik} * X_k,$$

where  $O_i^{\alpha+1}$  denotes the value of the overriding limit for bucket i after  $\alpha + 1$  trades, and  $\delta_{ik}$  is the Kronecker Delta function and has a value equal to 0 if i is not equal to k and a value equal to 1 if i equals k.

Claim 7 (previously presented) The method of claim 6 wherein said calculation of said current available limits comprises:  
implementing a function expressed as

$$C_i^{\alpha+1} = \max (\min [M_i^{\alpha+1}, O_i^{\alpha+1} ], CL_{\min}),$$

where  $C_i^{\alpha+1}$  is the current available limit for bucket i after  $\alpha + 1$  trades,  $CL_{\min}$  is a minimum trade amount below which trades will be allowed and max is the maximum function and min is the minimum function.

Claim 8 (original) The method of claim 7 wherein  $CL_{\min}$  is zero.

Claim 9 (currently amended) The method of claim 1 further comprising:

using said computer system to calculate ~~calculating~~ a current available limit for each bucket.

Claim 10 (previously presented) The method of claim 9 wherein said calculation of said current available limit comprises:

implementing a function expressed as

$$C_i^{\alpha+1} = \max [C_i^{\alpha} - (M_i / M_k) * X_k, CL_{\min}]$$

where  $C_i^{\alpha+1}$  is the current available limit for bucket i after  $\alpha + 1$  trades,  $CL_{\min}$  is a minimum trade amount below which trades will be allowed and max is the maximum function and min is the minimum function.

Claim 11 (currently amended) The method of claim 9 further comprising:

using computer system to determine ~~determining~~ whether said trade amount associated with said trade signal is greater than said current available limit for said bucket associated with said trade tenor, said trade associated with said trade signal is not allowed if said trade amount is greater than said current available limit for said bucket associated with said trade tenor.

Claim 12 (currently amended) The method of claim 11 further comprising:

using computer system to display ~~displaying~~ an indication if said trade amount is greater than said current available limit.

Claim 13 (currently amended) A method, with the aid of a computer system, of tracking credit limits for a plurality of tenors of one or more financial instruments, each said tenor associated with one of a plurality of buckets, said method comprising:

receiving at said computer system a proportional draw down amount associated with each of said plurality of buckets, said received proportional draw down amount associated with each said bucket defining an initial proportional draw down ( $M_i^0$ ) for each of  $i = 1 \dots N$  buckets;

setting a normalized total credit (NTC) based on said initial proportional draw down for at least one said bucket;

using said computer system to calculate ~~calculating~~ a conversion ratio  $CR_i$  to said NTC for each said bucket ( $i$ );

using said computer system to recalculate ~~recalculating~~ NTC according to the function

$$NTC^{\alpha+1} = NTC^{\alpha} - (X_k * CR_i),$$

where  $NTC^{\alpha+1}$  is the NTC value after  $\alpha + 1$  trades,  $X_k$  is the size of the  $\alpha + 1$  trade and  $CR_i$  is the conversion ratio for bucket  $i$ ; and

using said computer system to recalculate ~~recalculating~~ said proportional draw down for each said bucket according to the function

$$M_i^{\alpha+1} = NTC^{\alpha+1} * 1 / CR_i$$

where  $M_i^{\alpha+1}$  denotes the value of the proportional draw down for bucket  $i$  after  $\alpha + 1$  trades.

Claim 14 (currently amended) The method of claim 1 wherein said credit limits are tracked for a plurality of parties, said method further comprising:

using said computer system to identify ~~identifying~~, for each party, a set of counterparties said party may potentially trade with, each said counterparty having at least one plurality of buckets associated with it.

Claim 15 (currently amended) The method of claim 14 wherein at least one party identifies a counterparty having at least a first plurality of buckets associated with a first financial instrument which said party may trade with said counterparty, said counterparty further having a second plurality of buckets associated with a second financial instrument which said party may trade with said counterparty, said method further comprising:

receiving a signal at said computer from said party assigning a first proportional draw amount for each of said first plurality of buckets, and

receiving a signal at said computer from said party further assigning a second proportional draw down amount for each of said second plurality of buckets.

Claim 16 (previously presented) The method of claim 15 in which said first proportional draw down amounts associated with said first plurality of buckets are unrelated to said second proportional draw down amounts associated with said second plurality of buckets.

Claim 17 (currently amended) The method of claim 14 in which at least one said party has a plurality of trading groups associated with it, said association stored on said computer system.

Claim 18 (currently amended) The method of claim 17 in which at least one said trading group has a set of counterparties associated with said trading group, said association stored on said computer system.

Claim 19 (previously presented) The method of claim 1 wherein said financial instruments are selected from the group consisting of stocks, contracts based on the exchange of commodities, bonds, and derivative instruments.

Claim 20 (original) The method of claim 1 wherein said financial instruments are selected from the group consisting of foreign exchange products, fixed income products, and equity products.

Claim 21 (original) The method of claim 19 wherein said derivative instruments are selected from the group consisting of American options, European options, exotic options, forwards, swaps, forward rate agreements, swaptions, and convexity products.

Claim 22 (currently amended) The method of claim 7 wherein the computer system receives a signal indicating  $CL_{min}$  is assigned globally by a party to a plurality of potential counterparties.

Claim 23 (currently amended) The method of claim 7 wherein the computer system receives a plurality of signals indicating  $CL_{min}$  is assigned individually by a party to each of a plurality of potential counterparties.

Claim 24 (currently amended) The method of claim 1 wherein said buckets 1 through N define a first proportional draw down relationship for credit extended by a buyer to a seller, said signal further includes an identification of a type of financial instrument associated with said trade;

said method further comprising:

receiving at said computer system a proportional draw down amount for a second plurality of buckets, said second plurality set of buckets defining a second proportional draw down relationship for credit extended by said seller to said buyer;

~~said method further comprising:~~

determining by said computer system whether to recalculate said first proportional draw down relationship for credit extended by said buyer to said seller based on said type of financial instrument; and

determining by said computer system whether to recalculate said second proportional draw down relationship for credit extended by said seller to said buyer based on said type of financial instrument,

wherein trades for certain types of financial instruments will only effect said first or second proportional draw down relationships based on the type of instrument and whether the party is a buyer or seller.

Claim 25 (currently amended) The method of claim 24 wherein each said bucket is associated with a current available credit limit, said method further comprising:

if said first proportional draw down relationship is recalculated, said computer system recalculating said current available credit limit for each said bucket in said first set of buckets; and

if said second proportional draw down relationship is recalculated, said computer system recalculating said current available credit limit for each said bucket in said second set of buckets.

Claim 26 (currently amended) The method of claim 25 wherein each said bucket is associated with an overriding credit limit, said method further comprising:

if said first proportional draw down relationship is recalculated, said computer system recalculating said overriding credit limit for each said bucket in said first set of buckets; and

if said second proportional draw down relationship is recalculated, said computer system recalculating said overriding credit limit for each said bucket in said second set of buckets.

Claim 27 (original) The method of claim 1 wherein said buckets are identified with a bucket tenor, each said trade being associated with a bucket having a bucket tenor greater than or equal to said trade tenor.

Claim 28 (original) The method of claim 1 wherein said buckets are identified with a bucket tenor, each said trade being associated with a first bucket and a second bucket based on interpolation.

Claim 29 (currently amended) A method of trading of financial instruments between a party and a plurality of institutions comprising:

receiving at a computer system a first signal identifying a plurality of institutions to trade with;

receiving at a computer system a second signal identifying a plurality of buckets (designated as bucket<sub>i</sub> for i = 1 to N buckets);

receiving at a computer system a third signal identifying a set of financial instruments to be traded, each said financial instrument having at least one tenor, each said bucket associated with a range of tenors;

for each said bucket, receiving at a computer system an initial available credit limit associated with each said bucket,

assigning a relationship to said available credit limits associated with said buckets, wherein credit extended on in connection with a trade action associated with a trade amount and a financial instrument having a tenor falling within said

range of tenors for one of said buckets (the  $k^{\text{th}}$  bucket) reduces said available credit in bucket<sub>i</sub> for  $i = 1$  to  $N$  in proportion to said trade amount multiplied by said initial available credit limit associated with bucket<sub>i</sub> divided by said initial available credit limit associated with said  $k^{\text{th}}$  bucket;

receiving at a computer system a fourth signal associated with a trade action, said signal including a type of financial instrument, a trade tenor and an amount; and

in response to said trade signal, said computer system recalculating said available credit limit for each said bucket based on said relationship of said credit limits.

Claim 30 (currently amended) ~~A system~~ An apparatus for tracking credit limits among at least a first trading entity and a second trading entity, said trading entities trading a plurality of tenors of one or more financial instruments, comprising:

at least one media storing a database, said database storing:

a first structure associated with said first trading entity representing a plurality of buckets (designated as bucket<sub>i</sub> for  $i = 1$  to  $N$  buckets), each bucket associated with a range of tenors of said one or more financial instruments, each said bucket associated with an available initial credit limit;

a second structure associated with current available limit for each said bucket; and

an interface adapted to receive a signal from a trading system, said signal associated with a trade action, said signal including a first party, a second party, a trade financial instrument, a trade tenor and a trade amount;

a server coupled to said interface and said database, said server adapted to:

receive said trade signal;

associate said trade signal with a bucket (the  $k^{\text{th}}$  bucket);

and

for each bucket<sub>i</sub> for  $i = 1$  to  $N$  reducing said currently available credit limit in proportion to said trade amount multiplied

by said initial available credit limit associated with bucket<sub>i</sub> divided  
by said initial available credit limit associated with said k<sup>th</sup> bucket.

Claim 31 (currently amended) The system apparatus of claim 30 further comprising:

a computer system adapted to produce a display associated with a trading entity, said display including a plurality of bids and offers, each bid and offer associated with a potential counterparty, a financial instrument and a tenor,

said display further indicating the credit status between said trading entity and said potential counterparty for each said bid and offer, said credit status based on said tenor, trade amount and said available credit limits associated with said potential counterpart for each said bid and offer.

Claim 32 (currently amended) The [system] apparatus of claim 30 wherein said server is

further adapted to receive signals associated with bids and offers, each bid and offer associated with a potential counterparty, a financial instrument and a tenor, said server generating a signal indicating the credit status between said trading entity and said potential counterparty for each said bid and offer, said credit status based on said tenor, trade amount and said available credit limits associated with said potential counterpart for each said bid and offer.

Claim 33 (currently amended) A method, with the aid of a computer system, of tracking credit limits for a plurality of tenors of one or more financial instruments, each said tenor associated with one of a plurality of buckets, said method comprising:

receiving at said computer system an initial available credit limit for each said bucket;

receiving at said computer system an initial overriding credit limit for each said bucket;

receiving at said computer system a signal associated with a trade action, said signal including a trade tenor and a trade amount, said trade action being associated with bucket (the k<sup>th</sup> bucket);

reducing said overriding credit limit for said k<sup>th</sup> bucket by said trade amount; and

for each bucket, for i = 1 to N, said computer system reducing said currently available credit limit in proportion to said trade amount multiplied by



said initial available credit limit associated with bucket<sub>i</sub> divided by said initial available credit limit associated with said k<sup>th</sup> bucket.

Claim 34 (previously presented) The method of claim 1, wherein said receiving an initial available credit limit for each said bucket comprises:

receiving a single monetary amount associated with one said bucket of said plurality of buckets, said single monetary amount defining the proportional draw down amount for said one bucket;

for each remaining bucket of said plurality of buckets, receiving a ratio to said single monetary amount, said initial available credit limit for each said bucket being determined by multiplying said ratio by said single monetary amount.

Claim 35 (previously presented) The method of claim 1, wherein said proportional draw down amount for each said bucket is expressed as a normalized amount.

Claim 36 (currently amended) The ~~system~~ apparatus of claim 30 wherein said initial available credit limit is stored as a normalized total credit.

Claim 37 (currently amended) The ~~system~~ apparatus of claim 31 wherein said received initial available credit limit is expressed as a normalized total credit.